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(56) Documents cited

GB 2213724 A EP 0427894 A1 EP 0392127 A2
EP 0314846 A1 US 4943563 A US 4455304 A
Chemistry of Pesticides, K.H.Buchel, 1983,
Wiley-Interscience, page 212

(58) Field of search

UK CL (Edition K) A5E EAB EBB EN EP EX
INT CL⁶ A01N

(54) Plant disguise protection

(57) A substance comprising odourants flavourings, proteins, sugars, tannings, oils, plant extracts is introduced into the xylem or phloem of trees and plants to deter and confuse pests.

- 1 -
[PANEL A]

PLANT DISGUISE PROTECTION
[P.D.P. AGENT]

This invention relates to a substance in liquid or solid form that when introduced into or onto trees and plants changes the smell and taste of said plants and trees to pests.

It is known to spray pesticides onto fruit crops on the domestic and commercial scale. This form of application has many weaknesses including pollution and hazards of spray-drift etc.

Pests find, recognize their host trees by smell, taste and texture. By changing the smell and taste of host trees, pests become confused. The egg laying pests need to lay eggs on fruit bearing trees for the young larvae or caterpillars to feed on. If the eggs are left on non fruiting trees, the larvae and caterpillars would perish. Pests that eat or suck sap of fruit trees and plants, can be deterred by increasing the amounts of sugars or tannings in the trees. Some sap suckers, by way of example, convert sugars in the sap into honey dew which they excrete. By increasing the amount of sugars in the sap, the digestive system of the pest is affected and cannot keep up with the conversion of sugars into honey dew. Tannings can also be added in this way. Other pests are specific feeders and will only attack certain species of trees. Once the smell and taste codes of these plants and trees are changed, they are effectively disguised against attack from these pests.

According to the present invention, a substance comprising of natural extracts, oils etc, from plants, trees or synthetic equivalent in liquid or solid form, introduced into tree and plants by way of patent application 9207824.5 or by way of entry through leaves or roots or by spraying or ground application deter pests from laying eggs or feeding.

By changing the smell and taste codes of trees and plants using natural extracts from trees, plants (many that are tropical), by adding sugars, tannings, natural oils, odourants and flavourings and proteins that disguise or deter pests from damaging fruit plants, fruit trees and plants. These extracts will be taken from trees and plants that contain strong smell and taste codes, by way of example, species endemic and tropical such as mint, tomatoe, eucalyptus, teaks and many other plants that contain natural insecticide or as an alternative, to change smell and taste of trees by synthetic substances.

CLAIMS

1. A liquid or solid substance that can be applied by method of patent application 9207824.5 directly into the xylem of trees and plants or by way of the leaves or roots of trees and plants.
2. A substance as claimed in claim 1 comprising of a toxic or non toxic formula made up of natural or synthetic substances.
3. A substance as claimed in claims 1 and 2 comprising of flavourants, odourants, or any other extracts from trees and plants including oils, sugars, tannings, protiens, alkaloids that have a detering or confusing effect on pests.
4. A substance as claimed in claimes 1 to 3 that once applied into or onto the tree or plant, changes the tree or plants natural smell and taste, disguising the presence of tree or plant to pests.
5. A substance as claimed in claims 1 to 4 that when entered through method 920782.5 gives a constant disguise to a tree or plant by changing the smell and taste of said tree or plant.
6. A substance as claimed in claims 1 and claim 4 that once entered into or onto a fruit tree or plant gives it the smell and taste codes of non fruiting trees or plants.
7. A substance as claimed in claims 1 and claims 3 that changes the taste of tree sap sufficiently enough to deter pests who feed on the sap.
8. A substance as claimed in claims 1 and claims 4 that once in a fruiting tree or plant over rides its natural smell and taste with that of another tree or plant.
9. A liquid or solid (in pellet form), that contains a flavourant, an odourant, a colourant, sugars, tannings, extract oils, protiens or a mixture of any of these.
10. A substance as claimed in claim 1 and claim 4 when applied to non fruiting trees or plants gives them the smell and taste of fruiting trees and plants attracting pests to deposit their eggs where the larvae or caterpillars can do no harm.
11. A substance substantially as herein before described

[PANEL B]

Amendments to the claims have been filed as follows

1. A liquid substance made up of natural or synthetic flavourants, odourants, oils, sugars, tannings, proteins, other extracts from plants that have strong smell and taste codes to pests, that when introduced directly into the Phloem and the Xylem of trees and plants, deter and confuse pests.
2. A liquid substance as claimed in claim 1, that changes the natural smell and taste of host tree and plants confusing the pests that rely on these senses to locate host plants and trees.
3. A liquid substance as claimed in claim 1 to 2, that changes the taste of sap enough to deter pests that suck sap, or eat leaves of trees and plants.
4. A liquid substance as claimed in claim 1-3, that once introduced into the Phloem and Xylem, can change the smell and taste of a fruiting tree into a non fruiting tree or vice versa.
5. A liquid substance as claimed in claim 1-4, that increases sugars, tannings, already present in trees, as well as changing smell and taste of trees and plants enough to deter pests by causing digestive and internal problems and discomfort.
6. A substance as claimed in 1-5, that overcomes the natural smell and taste of trees and plants by adding a false smell and taste.
7. A substance substantially as herein before described.

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

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Relevant Technical fields

(i) UK Cl (Edition K) A5E EN EP EX EAB EBB

(ii) Int Cl (Edition 5) A01N

Search Examiner

P N DAVEY

Databases (see over)

(i) UK Patent Office

(ii)

Date of Search

18 NOVEMBER 1992

Documents considered relevant following a search in respect of claims

1-7

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2213724 A (LONG) see eg page 1 line 25 - page 2 line 23	1 at least
X	EP 0427894 A1 (MITSUI NORIN) see eg page 2 line 53 - page 3 line 6	1 at least
X	EP 0392127 A2 (SAININ) see eg abstract	1 at least
X	EP 0314846 A1 (R AND C PRODUCTS) see eg page 3 lines 15-26	1 at least
X	US 4943563 (CORNELL) see eg column 3 line 53 - column 4 line 19	1 at least
X	Chemistry of Pesticides, K H Buchel, 1983, Wiley-Interscience, page 212	1 at least
X	US 4455304 (YARALIAN) see eg column 1 lines 66-68 and column 2 lines 23-28	1 at least

Category	Identity of document and relevant passages	Relevant to claim(s).

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

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